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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,037	09/02/2003	Koichi Fukasawa	03152DIV	1528
23338	7590	06/29/2006	EXAMINER	
DENNISON, SCHULTZ & MACDONALD 1727 KING STREET SUITE 105 ALEXANDRIA, VA 22314			LEWIS, MONICA	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/652,037

Applicant(s)

FUKASAWA ET AL.

Examiner

Monica Lewis

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This office action is in response to the request for continued examination filed October 7, 2005.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/7/05 has been entered.

#### ***Specification***

3. The title of the invention is not **descriptive**. A new title is required that is clearly **indicative of the invention** to which the claims are directed.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as obvious over Applicant's Prior Art in view of Washimi (Japanese Patent No. 357194588) and Wiese (U.S. Patent No. 5,723,363).

In regards to claim 5, Applicant Prior Art discloses the following:

- a) a substrate (For Example: See Page 1 Lines 12 and 13);
- b) an LED (2) mounted on the substrate (For Example: See Figure 7);
- c) a transparent layer (4) made of transparent epoxy resin and sealing the LED (For Example: See Figure 7 and Page 1 Lines 23-25);
- d) a reflector film (5) formed around peripheral outside walls of the transport layer, except for an upper surface of the transparent layer as a light emitting surface (For Example: See Figure 7); and
- e) wherein the reflector film has a length and width corresponding generally to those of the substrate, and a height corresponding generally to that of the transparent layer (For Example: See Figure 7).

In regards to claim 5, Applicant's Prior Art fails to disclose the following:

- a) a substrate made of resin.

However, Washimi discloses the use of a substrate made of resin (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include a substrate made of resin as disclosed in Washimi because it aids in improving the characteristics of the diode (For Example: See Abstract).

Additionally, since Applicant's Prior Art and Washimi are both from the same field of endeavor (semiconductors), the purpose disclosed by Washimi would have been recognized in the pertinent art of Applicant's Prior Art.

- b) a reflector film made of epoxy resin containing white pigment.

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However, Wiese discloses the use of a reflector film (34) made of epoxy resin containing white pigment (For Example: See Column 3 Lines 30-33). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Applicant's Prior Art to include the use of a reflector film made of epoxy resin containing white pigment as disclosed in Wiese because it aids in preventing light from being absorbed (For Example: See Column 3 Lines 23-36).

Additionally, since Applicant's Prior Art and Wiese are both from the same field of endeavor (semiconductors), the purpose disclosed by Wiese would have been recognized in the pertinent art of Applicant's Prior Art.

In regards to claim 6, Applicant Prior Art discloses the following:

a) the substrate has a plurality of LED's (2) mounted thereon (For Example: See Figure 7).

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 571-272-1838. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 for regular and after final communications.

ML  
June 25, 2006

A handwritten signature in black ink, consisting of stylized, overlapping loops and curves, located in the bottom right corner of the page.